



2006-11-13 4600-0106P.ST251.txt  
SEQUENCE LISTING

<110> KUMADA, Izumi et al.  
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<140> US 10/642,284  
<141> 2003-08-18  
<150> JP 2003-038643  
<151> 2003-02-17  
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tattactgca cgcgcagtgg c 21

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gcctcaggcg atacctttac g 21

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cgtaaaggta tcgcctgagg c 21

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<212> DNA

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<223> Synthesized nucleotide V h5H-M69LT73R(-)

<400> 22

tcgaaatgct gcgatcaacc gtcaggggtca ctttg 35

<210> 23

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<223> Synthesized nucleotide W h5H-I75SS76RA78V(+)

<400> 23

gataccagca gtcgcacggt ctatatggaa 30

<210> 24

<211> 30

<212> DNA

<213> Artificial Sequence

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<223> Synthesized nucleotide X h5H-I75SS76RA78V(-)

<400> 24

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<213> Mouse

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<400> 25

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48

Gln Val Gln Leu Gln Gln Ser Gly Ser Glu Met Ala Arg Pro Gly Ala

1

5

10

15



tca gtg aag ctg ccc tgc aag gct tct ggc gac aca ttc acc agt tac  
96

Ser Val Lys Leu Pro Cys Lys Ala Ser Gly Asp Thr Phe Thr Ser Tyr

20

25

30

tgg atg cac tgg gtg aag cag agg cat gga cat ggc cct gag tgg atc  
144

Trp Met His Trp Val Lys Gln Arg His Gly His Gly Pro Glu Trp Ile

35

40

45

gga aat att tat cca ggt agt ggt ggt act aac tac gct gag aag ttc  
192

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe

50

55

60

aag aac aag gtc act ctg act gta gac agg tcc tcc cgc aca gtc tac  
240

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ser Arg Thr Val Tyr

65

70

75

80

atg cac ctc agc agg ctg aca tct gag gac tct gcg gtc tat tat tgt  
288

Met His Leu Ser Arg Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys

85

90

95

aca aga tcg ggg ggt ccc tac ttc ttt gac tac tgg ggc caa ggc acc  
336

Thr Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr

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105

110

act ctc aca gtc tcc tcc  
354

Thr Leu Thr Val Ser Ser

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 1 5 10 15

gat caa gcc tcc atc tct tgc aga tct agt cag aac att gta cat aat  
 96  
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn  
 20 25 30

aat gga atc acc tat tta gaa tgg tac ctg caa agg cca ggc cag tct  
 144  
 Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Arg Pro Gly Gln Ser  
 35 40 45

cca aag ctc ctg atc tac aaa gtt tcc gac cga ttt tct ggg gtc cca  
 192  
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro  
 50 55 60

gac agg ttc agt ggc agt gga tca ggg aca gat ttc aca ctc aag atc  
 240  
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
 65 70 75 80

agc aga gta gag gct gag gat ctg gga att tat tac tgc ttt caa ggt  
288

Ser Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Tyr Cys Phe Gln Gly

85

90

95

tca cat att cct ccc acg ttc gga ggg ggg acc aag ctg gaa atc aaa  
336

Ser His Ile Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys

100

105

110

cgt gcg

342

Arg Ala

<210> 27

<211> 357

<212> DNA

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<222> (1)..(357)

<223> Synthesized chimeric Sequence(hOH)

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cag gtg caa ctg gtg cag agc ggc ggt ggc gtt gtg cag ccg ggc cgc  
48

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg

1

5

10

15

agc ctg cgc ctg tct tgc aaa gcg agc ggc tat acc ttt acg cgc tat  
96

Ser Leu Arg Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr

20

25

30

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acc atg cat tgg gtg cgc cag gcg ccg ggc aaa ggt ctg gaa tgg att  
144

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile

35

40

45

ggc tat att aac ccg tct cgc ggc tat acc aac tat aat cag aaa gtg  
192

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val

50

55

60

aaa gat cgc ttt acc att agc cgc gat aac tct aaa aac acc gcg ttt  
240

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe

65

70

75

80

ctg cag atg gat agc ctg cgc ccg gaa gat acc ggc gtg tat ttt tgc  
288

Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys

85

90

95

gcg cgc tac tat gat gac cat tat agc ctg gat tat tgg ggc cag ggc  
336

Ala Arg Tyr Tyr Asp Asp His Tyr Ser Leu Asp Tyr Trp Gly Gln Gly

100

105

110

acc ccg gtg acc gtt agc tcg  
357

Thr Pro Val Thr Val Ser Ser

115

<210> 28

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> CDS

<222> (1)..(324)

<223> Synthesized chimeric Sequence(hOL)

<400> 28

gat atc cag atg acc cag agc ccg agc tct ctg agc gcg agc gtg ggc  
48

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

1

5

10

15

gat cgc gtg acc att acg tgc agc gcg tct agc tct gtg agc tat atg  
96

Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met

20

25

30

aac tgg tac cag caa acc cca ggc aaa gcg ccg aaa cgc tgg att tat  
144

Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr

35

40

45

gat acc agc aaa ctg gcg agc ggc gtg ccg agc cgc ttt agc ggc tct  
192

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser

50

55

60

ggt agc ggc acc gat tat acg ttt acc att agc tct ctg cag ccg gaa  
240

Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu

65

70

75

80

gat att gcg acc tat tac tgc cag caa tgg agc tct aac ccg ttt acc  
288

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr

85

90

95

ttt ggc cag ggt acc aaa ctg cag att acc cgc gcg

324

Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr Arg Ala

100

105

<210> 29

<211> 354

<212> DNA

<213> Artificial Sequence

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<222> (1)..(354)

<223> Synthesized chimeric Sequence(h5H)

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48

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

1

5

10

15

tcg gtt aaa gtg agc tgc aaa gcc tca ggc tat acc ttt acg agc tac

96

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr

20

25

30

tgg atg cat tgg gtg cgc cag gcc ccg ggt cag ggc ctg gaa tgg atg

144

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

35

40

45

ggc aac att tat ccg ggc agc ggt ggc acc aac tat gcg gaa aaa ttt

192

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe

50

55

60

aag aac cgc gtg acc atg acg cgt gat acc agc att tcg acg gcc tat

240

Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr

65

70

75

80

atg gaa ctg agc cgc ctg cgt agc gat gac acc gcc gtg tat tac tgc

288

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85

90

95

gcg cgc agt ggc ggt ccg tat ttt ttc gat tac tgg ggc cag ggt acg

336

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr

100

105

110

ctg gtt acc gtg agc tcg

354

Leu Val Thr Val Ser Ser

115

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48

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly

1

5

10

15

gaa ccg gcg tcg att agc tgc cgc agc tcg cag aac atc gtg cat aat

96

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Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn

20

25

30

aac ggc att acc tat ctg gaa tgg tat ctg cag aaa ccg ggc caa agc  
144

Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser

35

40

45

ccg cag ctg tta att tat aaa gtg agc gat cgc ttt agc ggc gtg ccg  
192

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro

50

55

60

gat cgc ttt tcg ggc agc ggt agt ggc acc gat ttt acg ctg aaa att  
240

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile

65

70

75

80

agc cgc gtg gaa gcg gag gat gtt ggc gtg tat tac tgc ttt cag ggc  
288

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly

85

90

95

agc cat atc ccg cca acc ttt ggc caa ggc acc aaa gtg gaa att aaa  
336

Ser His Ile Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys

100

105

110

cgc gcg

342

Arg Ala

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115

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<213> Artificial Sequence

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<223> Synthesized chimeric Sequence(h5H-m02)

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115

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<223> Synthesized chimeric Sequence(h5H-m03)

<400> 33

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115

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<223> Synthesized chimeric Sequence(h5H-m04)

<400> 34

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile

35

40

45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
 50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
 100 105 110

Leu Val Thr Val Ser Ser  
 115

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<400> 35

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Asp Thr Phe Thr Ser Tyr  
 20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
 50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr

85

90

95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
                   100                                  105                                  110

Leu Val Thr Val Ser Ser  
                   115

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<400> 37

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1                  5                                  10                                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
                   20                                  25                                  30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
                   35                                  40                                  45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
                   50                                  55                                  60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ile Ser Thr Ala Tyr  
 65                                  70                                  75                                  80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
                   85                                  90                                  95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
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Leu Val Thr Val Ser Ser  
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1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
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<223> Synthesized chimeric Sequence(h5H-m09)

<400> 39

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ile Ser Thr Ala Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115

<210> 40

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized chimeric Sequence(h5H-m10)



<400> 40

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Met Thr Val Asp Thr Ser Ser Arg Thr Val Tyr  
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Thr  
85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Leu Val Thr Val Ser Ser  
115

<210> 41

<211> 118

<212> PRT

<213> Mouse

<400> 41

Gln Val Gln Leu Gln Gln Ser Gly Ser Glu Met Ala Arg Pro Gly Ala  
1 5 10 15

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Ser Val Lys Leu Pro Cys Lys Ala Ser Gly Asp Thr Phe Thr Ser Tyr  
20 25 30

Trp Met His Trp Val Lys Gln Arg His Gly His Gly Pro Glu Trp Ile  
35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
50 55 60

Lys Asn Lys Val Thr Leu Thr Val Asp Arg Ser Ser Arg Thr Val Tyr  
65 70 75 80

Met His Leu Ser Arg Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
85 90 95

Thr Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
100 105 110

Thr Leu Thr Val Ser Ser  
115

<210> 42  
<211> 114  
<212> PRT  
<213> Mouse

<400> 42

Asp Ile Leu Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ser Leu Gly  
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn  
20 25 30

Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Arg Pro Gly Gln Ser  
35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro

50

55

60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Tyr Cys Phe Gln Gly  
85 90 95

Ser His Ile Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys  
100 105 110

Arg Ala

<210> 43

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized chimeric protein sequence (hOH)

<400> 43

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg  
1 5 10 15

Ser Leu Arg Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr  
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile  
35 40 45

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Val  
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Phe  
65 70 75 80

Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr Phe Cys  
85 90 95

Ala Arg Tyr Tyr Asp Asp His Tyr Ser Leu Asp Tyr Trp Gly Gln Gly  
100 105 110

Thr Pro Val Thr Val Ser Ser  
115

<210> 44

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized chimeric protein sequence (hOL)

<400> 44

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met  
20 25 30

Asn Trp Tyr Gln Gln Thr Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr  
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser  
50 55 60

Gly Ser Gly Thr Asp Tyr Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu  
65 70 75 80

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr  
85 90 95

Phe Gly Gln Gly Thr Lys Leu Gln Ile Thr Arg Ala

100

105

<210> 45  
 <211> 118  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthesized chimeric protein sequence (h5H)

<400> 45

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
 20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
 35 40 45

Gly Asn Ile Tyr Pro Gly Ser Gly Gly Thr Asn Tyr Ala Glu Lys Phe  
 50 55 60

Lys Asn Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr  
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Ala Arg Ser Gly Gly Pro Tyr Phe Phe Asp Tyr Trp Gly Gln Gly Thr  
 100 105 110

Leu Val Thr Val Ser Ser  
 115

<210> 46  
 <211> 114  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized chimeric protein sequence (h5L)

<400> 46

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly  
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Ile Val His Asn  
20 25 30

Asn Gly Ile Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro  
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly  
85 90 95

Ser His Ile Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys  
100 105 110

Arg Ala

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